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Effects of ear and body acupressure on labor pain and duration of labor active phase: A randomized controlled trial

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ABSTRACT

Objectives: This study sought to compare the effects of multi-point ear and body acupressure on labor pain and the duration of labor active phase.
Design: Three-armed randomized controlled trial.
Setting: Kowsar Hospital, Qazvin, Iran.
Intervention: Participants in the body acupressure group received acupressure on GB21, GB30, BL32, LI4, and SP6 points, each for two minutes, at cervical dilation of four, six, and eight centimeters. For participants in the ear acupressure group, adhesive auriculotherapy-specific Vaccaria seeds were attached to their auricles on the zero, genitalia, Shen Men, thalamic, and uterine 1 and 2 acupoints. The seeds were compressed every thirty minutes, each time for thirty seconds. Participants in the control group received routine care services.
Main outcome measures: Labor pain intensity was assessed using a visual analogue scale at cervical dilation of four and ten centimeters.
Results: While there was no significant difference between mean scores of pain among three groups, mean score of labor pain in both acupressure groups was significantly less than that in the control group ($P < 0.001$). However, the difference between the acupressure groups was not statistically significant ($P = 0.12$). Moreover, the duration of labor active phase in the ear acupressure group was significantly less than those in the body acupressure and the control groups ($P < 0.001$).
Conclusion: Ear acupressure was significantly effective in reducing labor pain and shortening labor active phase. However, body acupressure solely reduces labor pain. Therefore, ear acupressure can be used to reduce labor pain and shorten labor active phase.

1. Background

Labor pain is described as the most severe pain during woman's lifetime.[1,2] Uncontrolled labor pain may result in fetal hypoxia and altered heart rate, reduce neonatal Apgar score, and increase midwifery interventions associated with obstetrics complications.[3] The great severity of labor pain causes intense fear over women's childbirth,[4,5] reduces their perceived ability to have a vaginal delivery,[6] and eventually requires them to request cesarean section.[7] A study on 342 Iranian women revealed that all of them had some levels of fear and 48.2% of them had intense fear over childbirth.[8] Another study reported that fear over childbirth increased the rate of elective cesarean section by 3–6 times.[9]

Painless delivery and effective labor pain management are among the strategies to encourage vaginal delivery.[10] Pharmacological measures are routine medical options for labor pain management; however, pain medications have potential maternal and fetal side effects.[11] A systematic review reported nausea, vomiting, and dizziness as the side effects of inhaled labor pain medications, highlighting that epidural analgesia results in fetal distress, hypotension, fever, and urinary

Abbreviations: STRICTA, Revised Standards for Reporting Interventions in Clinical Trials of Acupuncture: extending the CONSORT statement; GB21, Gall Bladder 21 acupoints; GB30, Gall Bladder 30 acupoints; BL32, Bladder 32 acupoints; BL21, Bladder 21 acupoints; BL31, Bladder 31 acupoints; LI4, large Intestine 4; SP6, Spleen 6 acupoints; LV3, Large Vessel 3 acupoints

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